National Aeronautics and Space Administration

Dissecting the 2023 SBIR & STTR Phase I Solicitations

January 17, 2023

NASA SBIR/STTR Program

sbir.nasa.gov

Agenda

AGENDA

- Program Overview
- Webinar Ground Rules
- Notable Changes
- Planning Ahead
- **Focused Q&A #1**
- Additional Opportunities
- **Focused Q&A #2**
- **Open Q&A**
- Key Takeaways
- Live Submissions Demonstration

Program Overview


WE ARE
PIONEERS,
AND SO
ARE YOU.

Who can join?

- The SBIR/STTR program's **focus is on R&D**, funding ideas that have the potential to solve some of NASA's most pressing challenges
- You **must be a Small Business Concern (SBC)** with 500 employees or less and legally established in the U.S.
  - *Read more about eligibility requirements in this year's SBIR solicitation: Chapter 1.5*
- **For STTR**, the partnering research institution (RI) must be in the U.S. and be a nonprofit college or university, domestic nonprofit research organization, or a federally funded R&D Center (FFRDC)
  - *Read more about eligibility requirements in this year's STTR solicitation: Chapter 1.5*
- **If NASA is not the right fit**, there are 10 other government agencies that have SBIR/STTR programs that you may want to explore: https://www.sbir.gov/agencies-landing

Approximately 80% of the small businesses we fund have less than 50 employees

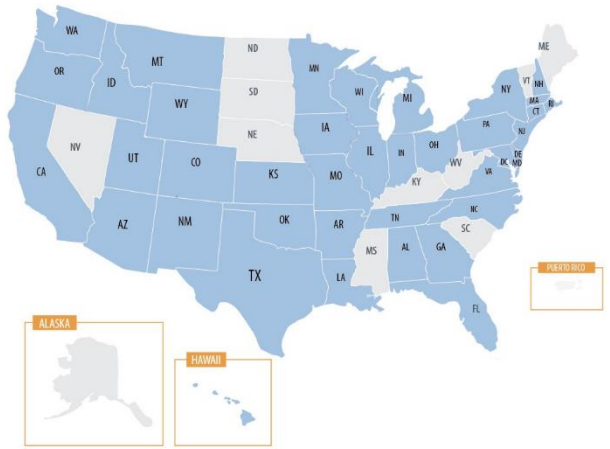
What is the difference between SBIR and STTR?

- The STTR program exists to unlock the power and innovative thinking of the country's **research institutions**
- The primary difference is that for STTR, the small business **must formally partner** with a RI
- Topics in **SBIR** support NASA's **mission directorates**, whereas the **STTR** topics are derived from the specific needs of NASA's **ten centers**
- The **period of performance** for a Phase I is longer for STTR due to the nature of the academic calendar for universities
- **SBIR**: Principal Investigator (PI) must be more than 50% employed by, and at least 67% of the research or analytical work must be performed by, the small business.
- **STTR**: PI can be employed by either the small business or the RI. At least 40% of the research or analytical effort must be performed by the small business, and at least 30% of the effort must be performed by a single RI.

Who received Phase I awards in 2022?

NASA Provides $50 Million Boost to U.S. Small Businesses

257 small businesses and **41** research institutions across **39** states and Washington, D.C. were selected to receive funding that supports technology development for NASA missions



80% of awarded small businesses have less than 50 employees

53 STTR awards helping to advance ideas from **41** research institution labs to market

Diversity Drives Innovation

"When NASA opens doors to talent previously left untapped, the universe is the limit."
– NASA Administrator Bill Nelson

24% of the research institutions partnering with small businesses for STTR are classified as Minority Serving Institutions

25% of the awarded small businesses are from underrepresented groups, including minority- and women-owned businesses

78 companies selected for their first SBIR/STTR award

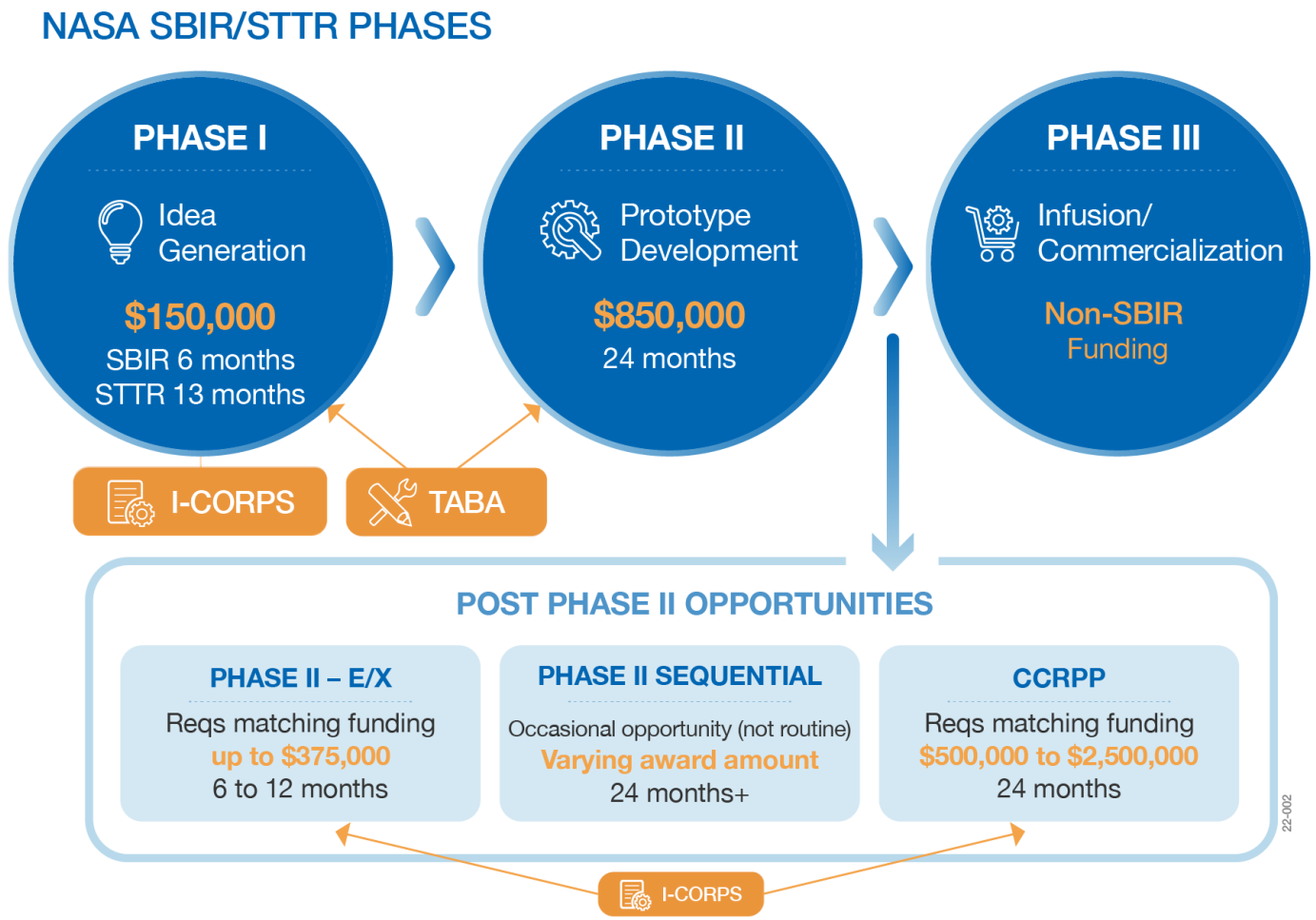
179 returning small business awardees

333 proposals selected for Phase I funding

280 SBIR & 53 STTR proposals selected

What exactly do you get?

Up to $1 million for Phase I and II and nearly $3 million or more for Post Phase II opportunities!



How does it work?

Solicitation Release

January 2023

Proposal Submissions

January – March 2023

Proposal Reviews and Selection

March – June 2023

Phase I Selection Announcement

June 2023

Contract Negotiations/Awards

June – August 2023

Phase II Proposal Submission

Due by Phase I Contract End Date

Note: A Federal agency may enter into a Phase III agreement at any time with a Phase I or Phase II awardee.

Note: Dates are subject to change. For the latest dates, please visit our website's "Schedule & Awards" page.

Webinar Ground Rules

Webinar Ground Rules

This webinar is intended to help you navigate, read, understand, and respond to the solicitations. It is not official procurement guidance/instructions.

It is your responsibility to read and understand the solicitations in their entirety, and to develop and submit your proposal in accordance with the requirements and instructions contained therein.

Did you know?

The NASA SBIR/STTR program is currently in a communications “blackout” period.

Webinar Ground Rules

What will be covered today:

- Navigating the Solicitations
- Notable Changes
- Submissions Electronic Handbook (EHB)
- Best Practices and Common Pitfalls

What will not be covered today:

- In-Depth Info on Focus Areas
- In-Depth Info on Subtopics
- Technology Questions
- Input from Topic/Subtopic Authors

Notable Changes

Subtopic Classification

- In 2021, it was announced that the Human Exploration and Operations Mission Directorate (HEOMD) would be split into the **Exploration Systems Development Mission Directorate (ESDMD)** & the **Space Operations Mission Directorate (SOMD)**.
- This year's Phase I solicitations will be the first to make reference to the new structure.
- This is an administrative change that **does not impact the submission process**.
- Subtopics previously classified under HEOMD will now fall under the ESDMD-SOMD category.

- The subtopic classifications for the 2023 Phase I SBIR and STTR solicitations are:
  - **A** – Aeronautics Research Mission Directorate (ARMD)
  - **H** – Exploration Systems Development Mission Directorate (ESDMD) and Space Operations Mission Directorate (SOMD)
  - **S** – Science Mission Directorate (SMD)
  - **Z** – Space Technology Mission Directorate (STMD)
  - **T** – Small Business Technology Transfer (STTR)

Disclosure of Ties to Foreign Countries

- Under the SBIR and STTR Extension Act of 2022, a new requirement was put in place:
  - Each SBC submitting a proposal or application for a federally funded award is required to disclose their ties to foreign countries in regards to ownership, investment, contracts, technology licensing, or sales
- The NASA SBIR/STTR program will phase in this requirement for 2023 Phase I
  - **The program will not collect these disclosures at the time of proposal submission**
  - Instead, the program will collect these disclosures from firms selected for award before their contract is negotiated

Excerpt from Executive Summary

These disclosures will include:

A. The identity of all owners and covered individuals of the small business concern who are a party to any foreign talent recruitment program of any foreign country of concern, including the People's Republic of China;

B. The existence of any joint venture or subsidiary of the small business concern that is based in, funded by, or has a foreign affiliation with any foreign country of concern, including the People's Republic of China;

C. Any current or pending contractual or financial obligation or other agreement specific to a business arrangement, or joint venture-like arrangement with an enterprise owned by a foreign state or any foreign entity;

D. Whether the small business concern is wholly owned in the People's Republic of China or another foreign country of concern;

E. The percentage, if any, of venture capital or institutional investment by an entity that has a general partner or individual holding a leadership role in such entity who has a foreign affiliation with any foreign country of concern, including the People's Republic of China;

F. Any technology licensing or intellectual property sales to a foreign country of concern, including the People's Republic of China, during the 5-year period preceding submission of the proposal; and

G. Any foreign business entity, offshore entity, or entity outside the United States related to the small business concern.

NASA SBIR/STTR vs. NASA SBIR Ignite

- NASA SBIR Ignite:
  - Encourages participation from **product-driven companies** not looking at NASA as their primary customer
  - Places a heavy emphasis on **commercial viability** during review and scoring
  - **Streamlines the application process** by shortening the solicitation and the proposal requirements
  - **Features the same three phases and funding levels** as the main NASA SBIR/STTR solicitations
- Read last year's solicitation to learn more: https://sbir.nasa.gov/solicit-detail/80089

- Key Differences
  - **Commercialization:** Seeks tech that will stimulate the market and for which NASA is not the primary customer
  - **Engagement:** Includes direct engagement with a panel of experts for down-selected companies
  - **Topics:** Features a select few topics relevant to emerging commercial markets in aerospace
  - **Less Prescriptive Solicitation:** Encourages companies to maintain their go-to-market strategies
  - **Shorter Proposal:** Requires a short proposal and a slide deck in response to the solicitation
  - **Accelerated Award Schedule:** Phase II proposal due earlier in the Phase I period, allowing Phase II awards to be made faster

Planning Ahead

Registrations

- **Submitting a Phase I proposal requires the offeror to complete several registrations.**
- *Read more about these requirements in this year's solicitations:*
  - *SBIR: Chapter 2*
  - *STTR: Chapter 2*

- These registrations take time to complete. If you have not already, start the registration processes immediately.
- **Do not assume past registrations are up to date**. Please confirm and/or update required registrations immediately.
- The Submissions EHB also requires registration or update to a prior registration. EHB is the system that NASA uses for proposal submission.

Did you know?

SAM registration must be renewed annually; processing time can take up to two weeks.

Administrative Requirements

- Follow format requirements in the solicitation.
- Note page suggestions and requirements for certain sections.
- All registrations (e.g., SAM, SBA, EHB) must be current and correct.
- **Your proposal can be rejected for failing to adhere to these requirements**.

Deadline

- **A complete proposal package for Phase I shall be received via the Electronic Handbook (EHB) no later than 5:00pm ET on Monday, March 13, 2023.**
- *Read more about these requirements in this year's solicitations:*
  - *SBIR: Chapter 6*
  - *STTR: Chapter 6*

- All files constituting the complete proposal package must be uploaded prior to the deadline.
  - After upload, we recommend you **download your proposal package** to make sure you have uploaded the **correct documents** and **they are readable**.
- An Offeror that waits to submit a proposal package near the deadline is at risk of not completing the required uploads and endorsements of their completed proposal package by the deadline.
- If a complete proposal package is not received by the 5:00 p.m. ET deadline, the proposal package will be determined to be incomplete and will not be evaluated.

NASA will not accept late proposals.

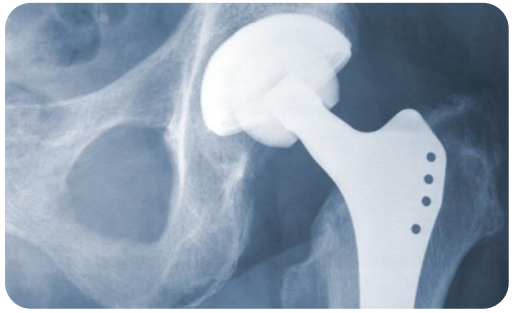
Did you know?

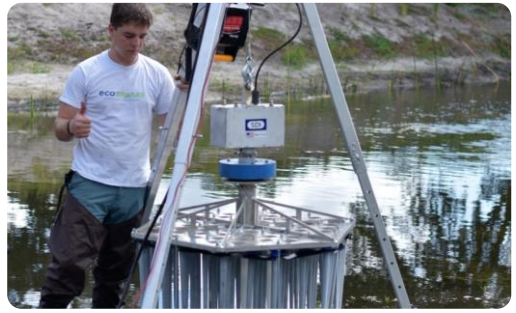
Nearly 80% of small businesses wait until the last day to submit, leaving zero margin for error.

NASA Technology Transfer Program

- NASA patented technologies can be used in parallel with SBIR/STTR projects.
- Our Patent Portfolio holds over 1,400 different technologies!
  - Patent Portfolio: https://technology.nasa.gov/patents
- NASA offers 900 FREE software codes in our Software Catalog!
  - Software Catalog: https://software.nasa.gov/
- *Read more about NASA Technology Available (TAV) in this year's solicitations:*
  - *SBIR: Chapter 1.6.1*
  - *STTR: Chapter 1.6.2*

NASA TECHNOLOGY TRANSFER PROGRAM



Focused Q&A 1

Topics: Program Overview; Notable Changes; Planning Ahead

Additional Opportunities

Did you know?

Less than 15% of firms that apply for Phase I take advantage of additional opportunities that NASA provides to help them be successful in commercial markets.

Technical and Business Assistance (TABA)

What is it?

- TABA services are aimed at **improving the commercialization success of SBIR/STTR awardees**
  - e.g., product sales, IP protections, market research, market validation, development of regulatory/manufacturing plans
- Supplemental funding available on Phase I and II SBIR/STTR contracts over and above the amount of the technical effort—i.e., **over and above your award amount**
  - **Phase I: Up to $6,500** | Phase II: Up to $50,000
- TABA funding must go to a third-party service provider; it may not be used internally by the award recipient
  - You may choose your own third-party vendor, subject to NASA review and approval
- TABA provides an opportunity for you to **stay focused on R&D** while utilizing a vendor to help shape your commercialization roadmap in order to:
  - Strengthen your ability to apply for future Phase II and Post Phase II/Phase III funding
  - Put into place strategies to commercialize in federal and NASA-relevant commercial markets
- Read more about this opportunity in this year's solicitations:
  - *SBIR: Chapter 1.8; Chapter 3.5.3.8 | STTR: Chapter 1.8; Chapter 3.5.3.8*

Technical and Business Assistance (TABA)

How do I get it?

- Small businesses may request up to $6,500 in TABA funding as part of the Phase I proposal
  - This request must be accompanied by a description of how the funding will be used
  - A request for TABA funding is not required and **will not be considered during the technical evaluation**

How do I use it?

- NASA encourages using Phase I TABA funding for:
  - Development of a Phase II TABA Needs Assessment – The goal of the TABA Needs Assessment is to determine and define the types of TABA services and costs the offeror would need if TABA is requested at Phase II and the project is selected. This assessment will be submitted with the Phase II proposal. **Phase II awardees may be eligible to receive up to $50,000 for TABA services.**
  - Development of a Phase II Commercialization and Business Plan – Phase II proposals require a commercialization and business plan so that NASA can evaluate a firm's ability to commercialize the innovation and to provide a level of confidence regarding the firm's future and financial viability.

I-Corps

What is it?

- The Innovation Corps (I-Corps) training program is designed to enable small businesses, **including start-up firms**, to increase the odds of accelerating SBIR/STTR technology development into a **repeatable and scalable business model**
- The NASA SBIR/STTR program partners with the National Science Foundation (NSF) to offer selected teams the opportunity to participate in the I-Corps program. We offer two versions:
  - Boot Camp Program (SBIR) | National I-Corps Program (STTR)
- **NASA will fund the I-Corps training** via a modification to the SBIR/STTR Phase I contract
  - Up to **$10,000** for each I-Corps Boot Camp team | Up to **$25,000** for each National I-Corps Program team
- Read more about this opportunity in this year's solicitations:
  - *SBIR: Chapter 1.7; Chapter 3.5.3.9 | STTR: Chapter 1.7; Chapter 3.5.3.9*

I-Corps

How do I get it?

- We conduct an abbreviated competition for I-Corps after Phase I selections
  - To be eligible to apply, you must "opt-in" when submitting your Phase I proposal; **opting in does not obligate you to participate**

How do I use it?

- I-Corps trainees develop business model hypotheses using the Business Model Canvas and test these hypotheses through the Customer Development Interview process
- The goal is to develop
  - A better understanding of the **needs of your customer base**
  - Your **value proposition** as it relates to those customer needs
  - An outline of a **business plan** for moving forward

What do NASA I-Corps graduates have to say?

"Why did we get a Phase III? **We listened to I-Corps** and changed our approach to selling this as a service."

"**I-Corps was an eye-opener**. We learned a lot about how to target products to customer needs. We adopted most of what we learned from I-Corps for the company."

Focused Q&A 2

Topics: TABA; I-Corps

Open Q&A

Key Takeaways

Key Takeaways

1. **Read the solicitations NOW and plan for your submission**
   - Spend time reading the Focus Areas and determine which solicitation to apply under
2. **Carefully review the solicitation you are applying to in its entirety**
   - Remember the programs are different from each other and there are different rules for SBIR vs. STTR
   - Note that there are additional rules that were not covered in this webinar that are critical to a successful proposal
3. **Plan ahead and be thorough**
   - Complete all the requirements in the solicitation (e.g., registrations, certifications)
4. **Submit early**
   - Avoid last-minute stress and leave time to address any issues; remember—we will not accept late proposals
5. **Leverage the additional opportunities the program offers**
   - Strongly consider applying for both TABA and I-Corps
6. **Use available resources**
   - Look into the numerous sources of local and regional assistance available throughout the country

Live Submissions Demonstration

Questions?

Visit our website:
www.sbir.nasa.gov